



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,242	12/19/2000	Jon C. Taenzer	022577-404	4466

7590 08/21/2003

DAVID G BECK
BINGHAM MCCUTCHEN LLP
3 EMBARCADERO CENTER
SUITE 1800
SAN FRANCISCO, CA 94111

EXAMINER

BARNIE, REXFORD N

ART UNIT	PAPER NUMBER
----------	--------------

2643

DATE MAILED: 08/21/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

37

Office Action Summary

Application No.
09/739,242

Applicant(s)

TAENZER

Examiner
REXFORD BARNIE

Art Unit
2643



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 5, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-62 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

RBarnie
REXFORD BARNIE
PRIMARY EXAMINER

Art Unit: 2643

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 25-34 and 46-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerns et al. (US Pat# 6,144,748) in view of Taenzer (US Pat# 5,751,820).

Regarding claims 25 and 46, Kerns teaches a hearing aid with a speaker, microphone, a processor, and an EEFROM which can be used in controlling a hearing aid in (see figs.). furthermore, Kerns teaches being able to use a wireless terminal in conjunction with the hearing aid in (see col. 4 lines 28-30) but fails to teach the subject matter of being able to automatically connect incoming calls to hearing aid device thus changing the state from a hearing aid state to a telephone state.

Taenzer teaches a hearing aid which can wirelessly communicate with a remote processor in (see figs. 1A). According to Taenzer, the hearing aid's remote processor can communicate with a cellular communication system such that an incoming cellular call can automatically be connected via a wake-up control mode in (see column 9 line 66-column 10 line 22, column 3 lines 17-22). Furthermore, Taenzer teaches being able to switch rapidly from a non-receive mode

Art Unit: 2643

to a receive mode to allow a transceiver of the hearing aid to sample and transmit audio signals in (see column 5 lines 50-column 6 line 7). The hearing aid would perform in a first signal path namely "a first mode" equivalent to a hearing aid mode according to (see column 6 lines 8-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Taenzer into that of Kerns thus making it possible to automatically switched an incoming call to a speaker to hear audible signals without having to do so manually.

Regarding claims 26-29, the claimed subject matter is rendered obvious by the combination.

Regarding claims 30-34 and 53- 60, the combination including Taenzer renders the claimed subject matter obvious based on (see col. 10 lines 1-23 of Taenzer).

Regarding claims 47-51, the combination teaches signal processing of incoming signals. In the ear signal processing or a remote processor is notoriously well known. Signals are processed before they are sent to a speaker unit.

Regarding claim 52, filtering for noise is notoriously well known and would have been obvious to filter out incoming signals to improve sound signals.

3. Claims 35, 36, 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerns et al. (US Pat# 6,144,748) in view of Taenzer (US Pat# 5,751,820) and further in view of Anderson (US Pat# 4,396,806, cited by applicant).

Art Unit: 2643

Regarding claims 35-36, 61 and 62, The prior art of record fails to teach the claimed subject matter but it's notoriously well known in the hearing aid to use multi-channel as taught by Anderson who teaches a hearing aid with multiple band amplification with controllable gain and compression processing characteristics in (see disclosure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Anderson thus making it possible to control the amplification level and enhance sound intelligibility.

4. Claims 37-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerns et al. (US Pat# 6,144,748) in view of Taenzer (US Pat# 5,751,820) and further in view of Topholm (US Pat# 5,202,927) or Anderson (US Pat# 5,721,783, cited by applicant).

Regarding claims 37-41 and 45, see the explanation as set forth regarding claim 26. The combination including Kerns teaches an EEPROM for controlling the hearing aid but fails to teach the claimed subject matter in detail.

It's notoriously well known in the art to store hearing aid parameters in a memory for the purpose of signal processing of audio signals for an individual.

Topholm teaches a hearing aid memory means which can store hearing aid signal processing parameters in memories (5) and (6). It's could be a unitary memory as known in the art.

Art Unit: 2643

Anderson teaches a hearing aid with a processor with a memory structure which can be used in controlling telephone functionalities as well normal hearing aid processing in (see 948 of fig. 9, column 23 lines 26-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate either one of the secondary references into that of Taenzer thus making it possible to control hearing aid based on stored signal processing parameters suitable for a hearing aid user.

Regarding claims 42-44, the combination including Kerns teaches the claimed subject matter.

5. Claims 25-34 and 46-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marutake et al. (US Pat# 5,010,575) in view of Taenzer.

Regarding claims 25 and 46, Marutake teaches a hearing aid with a microphone, telecoil, speaker switching means and a signal processing whether the hearing aid can switch states from a hearing aid to a telephone mode in (see figs. And disclosure) but fails to teach automatic switching.

Taenzer teaches a hearing aid which can wirelessly communicate with a remote processor in (see figs. 1A). According to Taenzer, the hearing aid's remote processor can communicate with a cellular communication system such that an incoming cellular call can automatically be connected via a wake-up control mode in (see column 9 line 66-column 10 line 22, column 3

Art Unit: 2643

lines 17-22). Furthermore, Taenzer teaches being able to switch rapidly from a non-receive mode to a receive mode to allow a transceiver of the hearing aid to sample and transmit audio signals in (see column 5 lines 50-column 6 line 7). The hearing aid would perform in a first signal path namely "a first mode" equivalent to a hearing aid mode according to (see column 6 lines 8-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Taenzer into that of Kerns thus making it possible to automatically switched an incoming call to a speaker to hear audible signals without having to do so manually.

Regarding claims 26-29, the claimed subject matter is rendered obvious by the combination.

Regarding claims 30-34 and 53- 60, the combination including Taenzer renders the claimed subject matter obvious based on (see col. 10 lines 1-23 of Taenzer).

Regarding claims 47-51, the combination teaches signal processing of incoming signals. In the ear signal processing or a remote processor is notoriously well known. Signals are processed before they are sent to a speaker unit.

Regarding claim 52, filtering for noise is notoriously well known and would have been obvious to filter out incoming signals to improve sound signals.

6. Claims 35, 36, 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marutake et al. (US Pat# 5,010,575) in view of Taenzer (US Pat# 5,751,820) and further in view of Anderson (US Pat# 4,396,806, cited by applicant).

Art Unit: 2643

Regarding claims 35-36, 61 and 62, The prior art of record fails to teach the claimed subject matter but it's notoriously well known in the hearing aid to use multi-channel as taught by Anderson who teaches a hearing aid with multiple band amplification with controllable gain and compression processing characteristics in (see disclosure).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Anderson thus making it possible to control the amplification level and enhance sound intelligibility.

7. Claims 37-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marutake et al. (US Pat# 5,010,575) in view of Taenzer (US Pat# 5,751,820) and further in view of Topholm (US Pat# 5,202,927) or Anderson (US Pat# 5,721,783, cited by applicant).

Regarding claims 37-41 and 45, see the explanation as set forth regarding claim 26. The combination fails to teach the claimed subject matter in detail.

It's notoriously well known in the art to store hearing aid parameters in a memory for the purpose of signal processing of audio signals for an individual.

Topholm teaches a hearing aid memory means which can store hearing aid signal processing parameters in memories (5) and (6). It's could be a unitary memory as known in the art.

Anderson teaches a hearing aid with a processor with a memory structure which can be used in controlling telephone functionalities as well normal hearing aid processing in (see 948 of fig. 9, column 23 lines 26-35).

Art Unit: 2643

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate either one of the secondary references into that of Taenzer thus making it possible to control hearing aid based on stored signal processing parameters suitable for a hearing aid user.

Regarding claims 42-44, the combination including Kerns teaches the claimed subject matter.

Conclusion

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to REXFORD BARNIE whose telephone number is (703) 306-2744. The examiner can normally be reached on Monday through Friday from 8:30 to 6:00p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached on (703) 305-4708.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to (703) 872-9314 and labeled accordingly (Please label

"PROPOSED/INFORMAL" or "FORMAL").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 306-0377.

Rexford Barnie
Patent Examiner
RB 08/12/03.


REXFORD BARNIE
PRIMARY EXAMINER